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Hydropower Investment Promotion Project (HIPP)

HIPP PUBLIC AWARENESS WORKSHOP IN TSKHENISTSKALI RIVER BASIN COMMUNITY

Report, July 6, 2013

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DELOITTE CONSULTING LLP

USAID/CAUCASUS OFFICE OF ENERGY AND ENVIRONMENT

Background

The United States Agency for International Development (USAID) through the Hydropower Investment Promotion Project (HIPP) supports development of a minimum 400 MW in new, run-of-the-river hydropower stations in Georgia. This project is managed by Deloitte Consulting. As part of this program, HIPP has identified a cluster of six project sites in the Tskhenistskali River Basin. HIPP is now conducting pre-feasibility studiesf for 6 projects with a total capacity of 139.8 MW. These HPP sites are on the River Tskhenistskali and its tributary Zeskho River in lower Svaneti (Lentekhi) region. The HIPP team is preparing basic technical studies to evaluate the technical and economical feasibility of the projects.

As part of this process and with the aim of ensuring public participation at the early planning stage, identify areas of community concern, and gather feedback from local residents public awareness workshop was held in the Building of Jakhunderi village (Lentekhi region) Secondary School with the communities of Jakhunderi, Chikhareshi, Mele, Tsana, Zeskho, Luji, Sasashi, Mummie, Leusheri, Panaga, Cholouri and Mazashi.

Aim of the Workshop

- Increase awareness of local communities on small and medium run-of-the-river hydro power plans and promote their support to such activities;
- Inform local community the goal of the project and ensure their involvement at the early planning stage.
- Identify community concerns regarding the possible development of the project and gain their feedback; ensure positive attitude towards the project and increase cooperation perspectives between public and project developers.

Workshop Process

The purpose of the meetings was to provide information and get the opinions of the locals related to the project. The date, place and the scope of these meeting was preliminary informed and agreed with Lentekhi Local Government during HIPP team field visits. Meeting date and venue were agreed with Local Municipalities; Public workshop was announced to all communities in Lentekhi district by local municipality, written advertisements were made at Municipality Building. Advertisement was sent to CENN electronic distribution network. HIPP team facilitated attendance of the Attorneys of all communities together with other active members at the Workshops. Lentekhi (in village Jakunderi) PAW attended by community members from: Jakhunderi, Chikhareshi, Mele, Tsana, Zeskho, Luji, Sasashi, Mummie, Leusheri, Panaga, Cholouri and Mazashi communities. Totally more than 50 community members attended the workshop.

During the workshop HIPP team members provided information about the project in general, made presentations on technical characteristics of the proposed HPP projects and on possible environmental and social impact. Issue that project will not create significant impoundment causing displacement of adjacent population was stressed during the workshop.

The HIPP team stressed the importance of public participation at early project design phase. Participants have been asked to express their opinion/attitude towards the

project in general as well as impact on environment and socio-economic conditions of their household.

THEMES:

- Community members asked to consider a cumulative impact that may take place in case of implementation of all 6 projects identified by HIPP. In this regard, health issues were underlined that may occur by increased humidity. HIPP representatives underlined that the impact would be minimal and mainly during the construction phase, though the investors would be obligated to meet international environmental and social protection requirements;
- Local benefits of the projects; Community members were interested whether they could benefit from the low electricity tariffs;
- Will the local community be able to influence on decision-making process of the project implementation? For instance, change certain component of the project. HIPP representatives explained that the main goal of the Workshop was achieving community influence on the project planning and asked them to note all their concerns and comments in the questioners distributed at the meeting so that HIPP could include the community concerns in the information offered to potential investors.

CONCLUSIONS:

- The outcome of Tskhenistskali Community public awareness workshops is as follows:
- Community's attitude towards the project development is positive; Community members think they could benefit from development of project in case the project developers properly consider their concerns/suggestions and watershed characteristics. On the other hand, community members are willing to cooperate with HPP project developers. From operation of the HPP local population expects to receive new job opportunities;
- Tskhanistskali community expressed interest in implementation of the projects, as they have the problems in electricity supply and think that if a new HPP is constructed nearby their problems will be resolved. Though main reason of their poor power supply is depreciated distribution networks, power supply lines and poles, which need replacing.
- Tskhenistskali Workshop also revealed no need of making a change in the design of the HIPP's sites. None of the residents declared their rights of ownership on any of the places, where constructions of the power house or intake structures are were planned, or concerning their pastures.
- The only concern was expressed that it would negatively impact on fish (Salmon) population and possible timber logging. Also questions were asked about the possible influence on cultural heritage. HIPP team assured that one of the HPP projects were projected near any churches or cemeteries.
- In summary, 30 community members filled in the questioner forms distributed by HIPP, out of which only two are negative; five had a neutral attitude and the rest, twenty three members marked positive.

The presentation on the project profiles, informational brochure on Tskhenistskali River Basin HPP Cascades, also, USAID energy map were used as supportive documentation. Meeting agenda, photos, and electronic version of the brochure distributed among them are attached to this report as illustrative materials.

Attachment A: Public Awareness Workshop Agenda

Public Awareness Meeting for Tskhenistskali River Basin HPP Cascades

Agenda

15:00–15:10	Registration		10 min
	Introductions	**Moderator :**	Duration
15:10–15.15	Opening remarks	USAID / HIPP, I. Iremashvili	5 min
15:15–15:25	HIPP Project description	HIPP / I. Iremashvili	10 min
15:25–16:10	HPP Project outline	HIPP / G. Sikharulidze	45 min
16:10–16:30	Presentation of identified social and environmental issues	HIPP / Iremashvili / G. Sikharulidze	20 min
	Questions and Discussion		
16:30–13.45	Filling out of the meeting questionnaire Discussion • Socioeconomic Issues • Environmental Issues • Public Health & Safety Issues • Construction Issues	Facilitated by: HIPP / I. Iremashvili HIPP / G. Pochkhua	1 hour

Attachment B: Photos of Public Awareness Workshops in Village Jakhunderi, Lentekhi Region

Attachment C: Informational Brochure on HIPP and Tskhenistskali HPP Projects

Hydropower Investment Promotion Project (HIPP)

HIPP - Main Goals and Activity

By the request of Georgian Government, the United States Agency for International Development (USAID) has been supporting a three year Hydropower Investment Promotion Project (HIPP) since March, 2010. HIPP is implemented by the international consulting company Deloitte Consulting.

Georgia's hydropower potential is largely undeveloped. Currently only 25% of the country's total generation potential has been realized. The country has many rivers that can provide environmentally friendly, power generation run-of-river hydropower projects with high annual plant factors, making them highly attractive to investors.

The goal of the HIPP initiative is to identify investment opportunities and incentivize investors resulting in private sector commitments to construct run-of-river hydropower plants – leading to increased generating capacity, locally produced energy, enhanced energy security, and the elimination of winter imports, greatly reducing the use of natural gas and other fuel sources for electricity production.

To stimulate and secure investment in Georgia's small and medium-sized hydropower market, Deloitte/HIPP is working with local and international partners in all areas to promote awareness and investment in Georgia's hydropower resources. Key areas of activity include:

- Developing Quality Engineering and Technical Information;
- Providing Targeted and Effective Investor Outreach and Promotion;
- Supporting Institutional Strengthening and Capacity Building; and
- Partnering Programs and Opportunities to Stimulate Investment.

Tskhenistskali HPP Cascade

As part of this program, HIPP has identified a cluster of project sites along the Tskhenistskali River (4 HPPs) and Zeskho River (2 HPPs) in Lentekhi region with total capacity of 121.3 MW.

The cascade of 6 HPPs (**Tskhenistskali 1, 2, 3, 4, and Zeskho 1, and 2 HPPs**) will be positioned near the villages: Makhashi, Tsana, Mele, Luji, Zeskho, Mami, Leusheri, Sasashi on the Tskhenistskali and Zeskho Rivers, which are characterized by high flows. The upper Tskhenistskali River basin with its tributaries Zeskho and Koruldashi lies between the north slopes of the Lechkhumi and the south slopes of the Svaneti Mountain Ranges. Its source is in the main range of the Caucasus Mountains, in the easternmost part of the Lentekhi District, Lower Svaneti. The river flows in Lower Svaneti are very seasonal. Discharges are low during winter months when most precipitation falls as snow, and are high during spring and summer when melt-water and rain runoff are combined.

- **Tskhenistskali 1 HPP** will be positioned near Makhvashi and Tsana villages: its power house - in 9 km from Makhvashi and 10 km downstream from Tsana, as for the intake structure of the plant it is planned in 16.5 km downstream of Tsana and 15 km upstream of Makhashi. he HPP will be the first stage in a cascade of six HPPs. According to the preliminary assessments, the 20.4 Megawatt (MW) run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 95.30 GWh, at a plant factor of about 53 percent.

General Technical Data

- **Tskhenistskali 2 HPP** will be positioned very near Makhvashi and Tsana villages: its power house - in 2 km from Makhvashi and 1.5 km downstream Mele, as for the intake structure of the plant it should be built in 5.5 km upstream of Makhashi. The HPP will be the second stage in a cascade of six HPPs. According to the preliminary assessments, the 16.2 Megawatt (MW) run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 73.60 GWh, at a plant factor of about 52 percent.
- **Tskhenistskali 3 HPP's** its power house will be in 1 km downstream of the village Luji and in 3 km from Sasashi. The intake structure of the plant will be located in 4.5 km downstream of Makhashi and 0.7 km upstream of Mele. The HPP will be the third stage in a cascade of six HPPs. According to the preliminary assessments, the 33.3 MW run-of-river, tunnel derivation type hydro power plant can be built on the river. The site offers seasonally variable average annual generation of about 153.60 GWh, at a plant factor of about 53 percent.
- **Tskhenistskali 4 HPP** will be positioned in 1 km downstream of Mami Village and in 2 km of Leusheri, as for the its power house, it should be built in 1 km downstream of Luji and 2 km upstream of Panaga Villages. The HPP will be the fourth stage in a cascade of six HPPs. According to the preliminary assessments, the 30.4 MW run-of-river, tunnel derivation type hydro power plant can be built here. The site offers seasonally variable average annual generation of about 139.40 GWh, at a plant factor of 52 percent.

This Brochure was prepared by Deloitte Consulting, the implementer of USAID funded Hydropower Investment Promotion Program

General Technical Data

- **Zeskho 1 HPP' s** power house will be positioned in 5.3 km of Zeskho Village and in 2.7 km of Tsana Village, and its intake structure will be in 1 km downstream of Tsana and 0.5 km from Zeskho. The HPP will be the fifth stage in a cascade of the six HPPs. According to the preliminary assessments, the 25.3 MW run-of-river, tunnel derivation type hydro power plant can be built here. The site offers seasonally variable average annual generation of about 119 GWh, at a plant factor of 54 percent.
- **Zeskho 2 HPP**'s power house will be positioned in 7 km downstream of Makhashi Village and in 2 km of Leusheri, and the intake structure should be built in 10 km upstream of Makhashi and 3 km - of Tsana Villages. The HPP will be the final, sixth stage in a cascade of the six HPPs. According to the preliminary assessments, the 14.2 MW run-of-river, tunnel derivation type hydro power plant can be built here. The site offers seasonally variable average annual generation of about 65.30 GWh, at a plant factor of 53 percent.

Local Community Benefits by Project Implementation

Local labor forces will be employed during the construction period, as well as after commissioning of the Plant to carry out operations and maintenance works.

- Local labor forces will be employed during the construction period, as well as after commissioning of the Plant to carry out operations and maintenance works. Job creation will also help the community as most of the people will get training in their proficiencies.
- New high quality access roads with total length of (km?) will be constructed that will significantly improve the village infrastructure.
- Small gabions will result in more regular water flows in river bed and help minimize flooding.
- Increased reliability of electricity supply and improved energy supply.

Expected results

Implementation of the project will support the realization of Georgia's hydropower potential. Tskhenistskali HPPs Cascade will substantially increase power generation and help to raise the Country's energy security for a future with sustainable energy resources. Total hydroelectric generation of Tskhenistskali HPP Cascade will amount to more than 120MW. Realization of the project will create good opportunities for:

- selling electricity inside Georgia supplementing expensive thermal power during winter;
- exporting electricity during non-winter months to take advantage of the seasonal differentials in power prices between Georgia and its neighboring countries;
- Utilization of additional renewable energy source that will help to reduce local as well as global carbon oxide emissions to the atmosphere.

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Promoting Renewable Energy
Promoting the Renewal of Georgia

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